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highlights

The year 2009 has been a productive year for the IEEE Engineering in Medicine and Biology Society (EMBS). We have accomplished a great deal in enhancing the quality of conferences and publications, owing to the tremendous efforts from our volunteers and staff. I take great pride in recognizing the achievements of our members. Across the globe, we are fortunate to have innumerable examples of significant progress. It is my pleasure to report to you the past year's highlights.

Society Awards

Recognizing excellence is one of the important functions of professional societies. It is my pleasure to congratulate the following colleagues for their outstanding contributions as 2009 EMBS award recipients:

- *William J. Morlock Award*: Luke P. Lee, UC Berkeley, for his contributions to the field of BioMEMS/BioNEMS and for the generation of biologically inspired artificial eyes and microdevices for cellular analysis
- *Academic Career Achievement Award*: Sergio Cerutti, Polytechnic University in Milan, for a meritorious career in biomedical engineering research in the area of biomedical signal processing and the advancement of biomedical engineering education
- *Professional Career Achievement Award*: Dorin Panescu, NewCardio Inc., for his groundbreaking contributions to the invention and development of medical devices for cardiac ablation, mapping, imaging, and cardiac resynchronization therapy
- *Distinguished Service Award*: John W. Clark, Jr., Rice University, for his outstanding service and contributions to the EMBS and a meritorious

career in biomedical engineering education

- *Early Career Achievement Award*: Silvestro Micera, Swiss Federal Institute of Technology, for his contributions on the development of implantable neuroprostheses and bio-mechatronic devices for the restoration of sensory motor function in disabled people.

Chapter Awards

Chapters are the important components of our member activities. To recognize grass roots activities by our members, EMBS provides awards to the highest performing chapters. In 2009, the following chapters were recognized:

- *Outstanding Chapter Award*: Hong Kong Chapter, for demonstrating achievement in member development and delivering services to members during the previous calendar year
- *Best New Chapter Award*: Swiss Chapter, for demonstrating outstanding activities, community outreach, and promotion of EMB
- *Outstanding Performance Award for Student Branch Chapter or Club*: University of Connecticut Student Branch Chapter, for demonstrating achievement in promoting student interest and involvement in biomedical engineering during the previous calendar year
- *Best New Student Branch Chapter or Club Award*: University of Western Australia Student Club, for activities demonstrating initiative, innovation, and creativity; areas of progress and improvement; significant impact in biomedical engineering education; and contributions to the profession.

Conferences

We have had a very successful year of conference activities. The flagship

annual conference of EMBS received a large number of quality submissions. For the first time, all the papers, including contributed and invited papers, were peer reviewed by the EMBS conference editorial board. The number of invited sessions also reached a record with a high number of outstanding speakers, including leading academicians, industrial leaders, and physician scientists.

The Special Topic conferences continue to enjoy excellent reputation in the field. The Neural Engineering Conference was successfully held in Turkey, and the International Symposium on Biomedical Imaging in Boston.

Thanks to the quality of our conferences, the conference proceedings are generating significant revenues, providing another good source of income to support our society's operations and initiatives.

Publications

Our major journals have achieved enhanced impact factors and shortened the submission to publication time. *Transactions on Neural Systems and Rehabilitation Engineering* reached the highest impact factor among all neuro-engineering journals. *Transactions on Medical Imaging*, *Transactions on Biomedical Engineering*, *Transactions on Information Technology in Biomedicine*, and *Engineering in Medicine and Biology Magazine*, all reached record high-impact factors in their history. These exciting numbers reflect not only the excitement of the field of biomedical engineering but also the increasingly improved quality of EMBS publications.

I would like to congratulate all colleagues whose efforts and dedication contributed to the success of EMBS. Despite the excellent progress we have made, we are facing challenges on a number of fronts. These include how to

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Members from around the world should be able to search for EMBS Chapters/clubs closest to them and immediately find the closest group of like-minded people. The EMBS will be encouraging each established Chapter/club to update their Web sites to include such basic details as executive contacts, meeting times/dates/places, meeting minutes, and activities (such as membership promotion, education, professional development, community service, social activities, communication, future plan-

ning, etc.). Furthermore, the EMBS will help those Chapters/clubs that do not already have a Web site, providing them with a template from which they can insert their own information and update/upgrade accordingly. Also, on a continual basis, the EMBS will utilize Google mapping (<http://maps.google.com/maps>) to pinpoint EMBS Student Chapters/Clubs around the world (see Figures 1 and 2) so that our members can visually find their nearest EMBS group and contact information. Like the

British Museum, *a museum of the world, for the world*, the EMBS is a *Society of the members, for the members*. Stay tuned for more, great, e-savvy endeavors from the EMBS, always working in the present toward a better future for our membership.

Lisa Lazareck has completed her doctorate of philosophy in electrical engineering in the Engineering Science Department, University of Oxford. She is currently living in London.

From the Editor *(continued from page 3)*

I encounter this shortcut again, and I suspect that others experience this problem as well.

So what can be done about this? Of course, the simple solution would be to just improve my memory; but unfortunately, in my case, things are going in the opposite direction. Another simple solution might be to use only those abbreviations that everybody knows. There are many of these in biomedical engineering such as EKG or ECG (it would be nice if we could all agree as to which one to use) to represent the electrocardiogram; BP to represent blood pressure (but, clinical staff will often use this as an abbreviation for bed pan!); IR and UV for infrared and ultraviolet radiation; FET for field effect

transistor; MRI for magnetic resonance imaging; and so on. Yet, I find many abbreviations that are not commonly understood but are used just to shorten an extended phrase that is frequently included in the writing, such as PVV for peak voltage value; CD for cell death; or CO for cardiac oscillations. It's these latter contractions and other similar convenient word and phrase truncations that give me trouble.

Perhaps a practical approach would be to have authors and investigators include a table of abbreviations with their manuscripts or proposals. Yes, this might take up more space than just discarding the abbreviation altogether and using the full word or phrase, but it would make life a lot easier for the reader or reviewer.

Another approach might be just to agree on a set of standard abbreviations for biomedical engineering and only use them, but this will involve committees, meetings, and controversy. One wonders if it would be worth the effort.

So I expect that the bottom line is: let's do none of these. Instead, let us as authors and principal investigators be aware of the problems that readers might encounter upon reviewing and assessing our writing and try to avoid or, at least, carefully and perhaps repeatedly, define non-routine abbreviations. Not only will this make the document much easier to read and understand, but it will hopefully help to keep the readers' frustration and anger levels at a minimum and avoid these feelings from influencing the review.

President's Message *(continued from page 4)*

better serve our members, both in academia and industry, how to better represent the biomedical engineering community, and how to further improve

the quality of our publications and conferences. We need concerted efforts to tackle these challenges to further enhance the quality of our products and

service to the membership and the profession. I welcome any thoughts you have and can be reached at binhe@umn.edu. Thanks again for a great year.